Exhibit 5

Vical DNA Vaccine Elicits Lasting Memory T-cell Immune Responses in Humans

TOULOUSE, France, May 14, 2007 /PRNewswire-FirstCall via COMTEX News Network/ -- Vical Incorporated (Nasdaq: VICL) announced today that antigen-specific memory T-cell responses to cytomegalovirus (CMV), which may be important in protecting against CMV disease, were detected six months after DNA vaccination in a majority of CMV-seronegative subjects in a previously completed Phase 1 study. Memory T-cells are known to respond quickly upon subsequent infection with virus, transforming into active, effector T-cells that can control disease.

The company previously detected transient vaccine-induced effector T-cells in a minority of subjects in the same Phase 1 study using an ex vivo ELISPOT assay. The recent results were obtained with a highly sensitive alternative assay, a cultured ELISPOT assay, which detects memory T-cells. "We are seeing a growing body of evidence that assays measuring only effector immune responses may underestimate the extent of T-cell priming by DNA vaccination," said Larry Smith, Ph.D., Vical's Vice President of Vaccine Research. "An assay that measures pathogen-specific immune memory may provide a more meaningful metric for DNA vaccines. We view the cultured ELISPOT assay results as an important step toward understanding responses to DNA vaccination in humans and in advancing DNA vaccines toward approval."

The highly sensitive cultured interferon-gamma ELISPOT assay detected memory T-cell immune responses in 15 of 22 CMV-seronegative subjects (68%) using archived samples from the company's completed Phase 1 trial of its bivalent DNA vaccine encoding CMV phosphoprotein 65 (pp65) and glycoprotein B (gB). Memory T-cell responses against these antigens were detected 10 to 12 weeks after the first vaccine dose and persisted for at least 24 weeks after the last vaccine dose (the last point in time for which specimens were available). Antigen-specific memory responses were detected by the cultured ELISPOT assay in some subjects who failed to show effector T-cell responses at any point in time by an ex vivo ELISPOT assay.

Mary K. Wloch, Ph.D., the company's Associate Director of Vaccinology, presented the data at the 11th International Cytomegalovirus/Betaherpes Virus Workshop (Toulouse, France, May 13 - 17). Vical conducted these studies in part under a grant from the National Institutes of Health.

About Vical

Vical researches and develops biopharmaceutical products based on its patented DNA delivery technologies for the prevention and treatment of serious or life-threatening diseases. Potential applications of the company's DNA delivery technology include DNA vaccines for infectious diseases or cancer, in which the expressed protein is an immunogen; cancer immunotherapeutics, in which the expressed protein is an immune system stimulant; and cardiovascular therapies, in which the expressed protein is an angiogenic growth factor. The company is developing certain infectious disease vaccines and cancer therapeutics internally. In addition, the company collaborates with major pharmaceutical companies and biotechnology companies that give it access to complementary technologies or greater resources. These strategic partnerships provide the company with mutually beneficial opportunities to expand its product pipeline and address significant unmet medical needs. Additional information on Vical is available at www.vical.com.

This press release contains forward-looking statements subject to risks and uncertainties that could cause actual results to differ materially from those projected, including: whether Vical or others will continue development of the CMV vaccine; whether memory T-cells will result in control of CMV disease; whether the company's DNA vaccine candidate will be effective in protecting humans against CMV disease; whether the use of the cultured ELISPOT assay will help advance DNA vaccines toward approval; whether the CMV vaccine or any other product candidates will be shown to be safe and effective in clinical trials; the timing, nature and cost of clinical trials; whether Vical or others will seek or gain approval to market the CMV vaccine or any other product candidates; whether Vical or others will succeed in marketing the CMV vaccine or any other product candidates; and additional risks set forth in the company's filings with the Securities and Exchange Commission. These forward-looking statements represent the company's judgment as of the date of this release. The company disclaims, however, any intent or obligation to update these forward-looking statements.

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